

On interdisciplinary learning

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When I read Augustine, I engage with the mind of someone who tried to develop an understanding of how language, theology and science interact. Similarly, Plato and Aristotle. I receive the same impression when I am reading contemporary thinkers like Umberto Eco and John Lennox. Or even authors of fiction like Marilynne Robinson or specialist Musicologists like Jeremy Begbie.

Eco considers the ideas of beauty and ugliness as being translated and altered across history; Lennox looks at the interconnections between mathematics and theology. Robinson explores the development of personal beliefs in a historical and social context. One of the joys of reading Jeremy Begbie is that he tries to comprehend musicology and the Christian concept of God as a Trinity in the same thinking space.

Each author has his or her own background discipline and approach, but has an empathy for other disciplines. In their search for a meta-narrative, or their belief in the absence of it, they are not dismissive. Their writing seems to lack conceit.

Some international curriculum providers recognise the importance of dialogue between the disciplines. Cambridge has its Theology and Philosophy course, the International Baccalaureate (IB) has a subject called 'Theory of Knowledge'. Some schools are making a significant effort to develop interdisciplinary thinking. The Board of Studies in my home state of NSW has a rigorous and well-developed curriculum, but it sadly lacks a course of this ilk, and a framework for interdisciplinary thinking.

For inter-disciplinary thinking to occur, it is essential that each discipline is well taught. Students of Economics might explore Keynes and Marx and Owen. They might debate the ideas connected to the free market and to protectionism. Students of Science could investigate Newton and Einstein. Without depth in a variety of disciplines, students won't have the knowledge or skills to engage in the type of thinking to which I am referring.

I am aware that, within their own subject areas, many teachers in NSW already engage in interdisciplinary thinking. The effective teacher of History, for example, is interested in the impact on society of all of the above economists and scientists. As educators we hope older students will ask if and how economic conditions influence the development

of scientific theories, or vice-versa. The Extension 2 History course in NSW allows students to ask important questions about what it is possible to know about history and how we might go about investigating it. Well taught courses for senior students allow access to questions of epistemology.

I am a strong believer in allowing a dialogue to occur within a school environment. A school is like a table set for a large meal. At the table we have represented numerous ways of thinking. There will be scientists who hold to Empiricism and linguists who support Post-structuralism. William Shakespeare has a place at the table, as does Frederick Nietzsche. And so does Jesus. Students both sit and listen, and interact. They hear the debates and dialogues, and they ask questions.

One of the most disappointing elements of recent public television that ostensibly has these goals (for example, a program like Q & A) is that it increasingly appears to 'set the table' so that it will privilege some speakers. At the 2013 Festival of Dangerous Ideas discussion featuring, amongst others, Germaine Greer and Peter Hitchens, the format and the role of the mediator did not enable a forum that built depth of understanding and appreciation of the positions of the speakers. Peter Hitchens, as the speaker with religious convictions was left to the abuses of a range of speakers who weren't seeking to understand, only to ridicule. Consequently, programs become a type of propaganda.

Whatever the media prioritises, our schools, as an alternative, need to commit to developing a rich and deep understanding within each student. Teachers need to read widely and to continually engage with their subject matter. They need to read texts that reinforce their current convictions, and texts that undermine them. In schools with a Christian base it is essential to expose teachers who come from a range of backgrounds to the riches of Christian literature. If theology is to have a place at the table, it must be well understood. A text like Richard Platinga's *Introduction to Christian Theology* is not a bad place to start.

In our western tradition the development metaphor is very powerful. It is still common for us to describe ourselves as developing from childhood to adulthood and to imagine that our society has 'developed' from 'primitive' to 'advanced'. Some current thinkers such

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as Dawkins and Hitchens rely on the development metaphor when they plot a similar trajectory from religious to secular. They associate religion with negative ideas and see an irreligious world as progress. Sadly, they actively seek to remove the religious thinker from education's table.

Religious people, of course, disagree.

My view is that at the table that is education, religious voices deserve to be heard. Interdisciplinary thinking allows Dawkins to be heard, and his critics from theology or philosophy to reply. It allows the theologian to take the lead and not just reply to a pre-set agenda.

The philosopher Keith Ward has an interesting framework for understanding belief (see Figure 1). Ward considers the relationship between matter and spirit. Are our minds only the product of a chain of physical causes and effects (Materialism)? Or were they created by a Mind, i.e., God (Theism)? Alternatively, is everything that exists actually part of that Mind (Monism)?

On the basis of their conviction that Reductive Materialism represents the truth, some thinkers would prefer if students weren't introduced to other ways of thinking. Or, if they are introduced to them, that it should only be through the lens of the sceptic. It is my experience that students really enjoy thinking about the big questions in life and benefit from having access to both individual disciplines such as theology, science, language and mathematics and to conversations between those disciplines. They need to hear the

authentic voices. Recent 'listening' opportunities are described below.

Recently at PLC Sydney we connected Art and Mathematics, with our Mathematician in Residence working alongside a visiting artist to look at how she had utilise mathematical principles in the creation of her artworks.

In 2011 we produced a piece of verbatim theatre on the topic of cyber-bullying. Drama teachers, pastoral care staff and external professionals worked together to create a piece of theatre addressing the issue of bullying over the internet. It created a dialogue in our school that was very positive.

My hope is that students would exit school with the capacity to empathise with others but holding their own convictions. They benefit greatly from being exposed to debates in a manner which provides them depth of understanding and within which they hear clearly articulated voices.

At PLC Sydney we undertake this through special projects such as the Art-Mathematics venture noted above, through the introduction of a middle years course in Theology and Philosophy and through guest speakers such as Professor John Lennox. As a Presbyterian School we will ensure that Christian voices are properly heard, but we will also allow other voices.

As sociologist Don Asquith said, "Fear closes the door to learning". **TEACH**

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Figure 1: Six models for understanding the relationship of spirit to matter

